

Bleached Kraft Pulp

SAFETY DATA SHEET (SDS)



1. Identification

TRADE NAME: Bleached Kraft Pulp (Cellulose)

SYNONYMS: Fluff Pulp, Northern Bleached Softwood Kraft (NBSK), Northern Bleached Hardwood Kraft (NBHK), Southern Bleached Softwood Kraft (SBSK), Southern Bleached Hardwood Kraft (SBHK)

CHEMICAL NAME: Cellulose (pulp)

Recommended Uses: Tissue, paper towels, filter paper, disposable diapers and feminine hygiene products, papers

Manufacturer: Resolute FP US Inc.

Address: PO Box 6
Calhoun, Tennessee
37309
USA

Contact, for emergencies: Call CHEMTREC
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887

Contact, for product information: 514-394-3684

2. Hazards Identification

Classification (hazard class and category):

Under the US 29 CFR 1910.1200, this product is not hazardous in the form in which it is shipped by Manufacturer but may become hazardous by downstream activities (e.g., grinding, sanding, pulverizing) that reduce its particle size. Those potential hazards created by downstream activities are described below.

Product Classification ⁽¹⁾	Hazard Statement(s)	Signal Word	Pictogram
Combustible Dust (OSHA Defined Hazard)	If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air	Warning	None

⁽¹⁾ Under the Canadian Hazardous Products Regulations (HPR), with respect to combustible dusts classification, HPR would only regulate products that are sold in dust form and not products that are in a solid form at the time of sale or importation which might produce dust when used in a workplace.

Precautionary Statement(s):

Prevention Statements: Caution should be taken in the processing, shipping, handling and use of this material, particularly if it is in a dry state and dust is produced.

Response Statements: Not applicable

Storage Statements: See section 7 of the SDS

3. Composition/Information on Ingredients

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., grinding, sanding, pulverizing) that reduce its particle size.

Ingredient (Chemical Name)	CAS Number	Wt %
Pulp Cellulose (C ₆ H ₁₀ O ₅) _n	65996-61-4	85-100
Water	7732-18-5	Balance

4. First Aid Measures

Inhalation First Aid: Excessive dust concentrations may cause unpleasant deposit or obstruction in the nasal passages. Remove to fresh air. Seek medical help if persistent irritation, severe coughing or breathing difficulty occurs.

Skin Contact First Aid: Not applicable for product in purchased form.

Eye Contact First Aid: Dust may mechanically irritate the eyes, resulting in redness or watering. Treat dust in eye as foreign object. Flush with water to remove dust particles. Seek medical help if irritation persists.

Ingestion First Aid: Not applicable under normal use.

Most Important Symptoms and Effects

Acute: Cellulose dust may cause eye irritation and obstruction in the nasal passages.

Delayed: Not applicable under normal use.

5. Fire Fighting Measures

Extinguishing Media and Restrictions: Water or other extinguishing agents appropriate for fighting surrounding fires.

Specific Hazards, Anticipated Combustion Products: Combustion products include carbon monoxide, carbon dioxide and fine particulate in the form of smoke.

Autoignition Temperature: 450°F (232°C).

Special Firefighting Equipment/Procedures: As in any fire, wear approved self-contained breathing apparatus and appropriate protective clothing.

Unusual Fire and Explosion Hazards: Pulp processing (e.g. fiberization) may result in the release of cellulose fibers. Bulk pulp as supplied and shipped is highly unlikely to release sufficient cellulose dust to

constitute a combustible dust explosion hazard. Depending on airborne concentration, moisture content, particle diameter, surface area and exposure to an ignition source, airborne cellulose dust may ignite and burn with explosive force in a contained area. Cellulose dust may similarly deflagrate (combustion without detonation like a supersonic explosion) if ignited in an open or loosely contained area. Cellulose dust explosibility: (*K_{st} dry = >200 and < 300 bar m/s). Caution should be taken in the processing, shipping, handling and use of these materials, particularly if they are in a dry state and dust is produced. Reference NFPA standards 654, 69 and the NFPA Fire Protection Handbook for guidance.

*K_{st} the maximum rate of pressure rise is used to calculate the K_{st} value; an internationally recognized index used to classify dust explosibility.

6. Accidental Release Measures

Always dispose of waste materials in accordance with all Federal, Provincial/State and Local regulations.

Personal Precautions, Protective Equipment and Emergency Procedures:

Sweep or vacuum up for recovery and disposal. Avoid creating dusty conditions whenever feasible. Maintain good housekeeping to avoid accumulation of cellulose dust on exposed surfaces. Use approved filtering facepiece respirator (“dust mask”) and goggles where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort.

Other Precautions: Minimize compressed air blowdown or other practices that generate high dust levels.

Environmental Precautions: See local requirement.

Methods and Material for Spill Containment/Clean-Up (procedures, methods, materials): Not applicable.

7. Handling and Storage

Precautions for Safe Handling: Minimize dust generation and accumulation. Keep in cool, dry place away from open flame and other sources of ignition. Maintain good housekeeping to avoid accumulation of dried cellulose dust on exposed surfaces. Cellulose dust may pose a combustible dust hazard.

Conditions for Safe Storage (including any incompatibilities): Not applicable

8. Exposure Controls/Personal Protection

Control Parameters

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., grinding, sanding, pulverizing) that reduce its particle size.

Ingredient	CAS Number	Dust fraction	ACGIH TLV-TWA	NIOSH REL-TWA	OSHA PEL-TWA
Cellulose (C ₆ H ₁₀ O ₅) _n	9004-34-6	Total dust	10 mg/m ³	10 mg/m ³	15 mg/m ³
	Cellulose, microcrystalline	Respirable fraction	--	5 mg/m ³	5 mg/m ³

Key to abbreviations:

ACGIH: American Conference of Governmental Industrial Hygiene

NIOSH: National Institute of Occupational Health and Safety

OSHA: Occupational Safety and Health Administration, 29 CFR 1910.1000 Table Z-1

TWA: Time Weighted Averages are based on 8h/day or 10h/day, 40h/week exposures

TLV: Threshold Limit Value

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

Exposure Controls

Engineering Measures/ Controls:

Ventilation:

LOCAL EXHAUST – Provide local exhaust as needed so that exposure limits are met. Ventilation to control dust should be considered where potential explosive concentrations and ignition sources are present. The design and operation of any exhaust system should consider the possibility of explosive concentrations of cellulose dust within the system. See “SPECIAL” section below.

MECHANICAL (GENERAL) – Provide general ventilation in processing and storage areas so that exposure limits are met.

SPECIAL – Ensure that exhaust ventilation and material transport systems involved in handling this product contain explosion relief vents or suppression systems designed and operated in accordance with applicable standards if the operating conditions justify their use.

Personal Protective Equipment:

RESPIRATORY PROTECTION – Use filtering facepiece respirator (“dust mask”) tested and approved under appropriate government standards such as NIOSH (US), where ventilation is not possible and exposure limits may be exceeded or for additional worker comfort or symptom relief when fiberization of the pulp occurs. Use respiratory protection in accordance with jurisdictional regulatory requirements similar to the OSHA respiratory protection standard 29CFR 1910.134 following a determination of risk from potential exposures.

EYE PROTECTION – Not applicable for product in purchased form. However, goggles or safety glasses are recommended if the product is used in such a way as to generate high dust levels.

PROTECTIVE GLOVES – Not normally required. However, cloth, canvas, or leather gloves are recommended to minimize potential mechanical irritation from handling product.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT – Not applicable for product in purchased form. Outer garments may be desirable in extremely dusty areas.

WORK/HYGIENE PRACTICES – Follow good hygienic and housekeeping practices. Clean up areas where cellulose dust settles to avoid excessive accumulation of this combustible material. Minimize compressed air blowdown or other practices that generate high airborne-dust concentrations.

9. Physical and Chemical Properties

Appearance/Form: Paper sheets, rolls or bales

Color: White

Odor: Odorless

Odor threshold: Not available

Solubility in water: Insoluble

pH: Not applicable

Melting/freezing point: Not applicable

Initial boiling point and range: Not applicable

Flash point: Not available

Upper/lower flammability/explosive limits: Not available

% Volatiles by volume at 21°C/70°F: Not available

Octanol/water partition coefficient: Not available

Flammability (gas/solid): Not available

Auto-ignition temperature: 450°F (232°C)

Decomposition temperature: Not available

Vapor pressure (mm Hg): Not applicable

Vapor density (air = 1): Not applicable

Evaporation Rate (BuAc=1): Not applicable

Viscosity: Not available

Specific gravity/bulk density: Not applicable

Relative density: Not applicable

10. Stability and Reactivity

Reactivity: Not applicable

Hazardous Polymerization: Will not occur

Stability: Stable

Conditions to Avoid: Not applicable

Incompatibility (Materials to Avoid): Avoid open flame, sparks and other sources of ignition.

Hazardous Decomposition or By-Products: Combustion products include carbon monoxide, carbon dioxide and fine particulate in the form of smoke.

Sensitivity to Static Discharge: Not applicable

11. Toxicological Information

Routes of Entry: Eye contact and inhalation

Signs and Symptoms of Exposure:

Acute Health Hazards: Not applicable for product in purchased form. Dust may be a mechanical irritant to the eyes.

Chronic Health Hazards: Cellulose (pulp) dust has not been shown to produce significant disease or toxic effects when exposure limits are met. Cellulose is poorly soluble and has a low order of toxicity.

Carcinogenicity Listing: Not applicable

Toxicity Data: Cellulose: LC_{50} (rats, inhalation) = 5,800 mg/m³/4 hours.

Skin Corrosion/Irritation: Data is not available.

Serious Eye Damage/Irritation: Data is not available.

Respiratory or Skin Sensitization: Data is not available.

Aspiration Hazard: Data is not available.

Reproductive effects: Data is not available.

Teratogenic effects: Data is not available.

Mutagenic effects: Data is not available.

Target Organs: Eyes and respiratory system.

12. Ecological Information*

The content of this section is not enforced under the United States Regulations 29 CFR 1910.1200 – Hazard Communication Standard (HCS) and the Canadian Hazardous Products Regulations (HPR), because it falls outside of its jurisdiction.

13. Disposal Considerations*

The content of this section is not enforced under the United States Regulations 29 CFR 1910.1200 – Hazard Communication Standard (HCS) and the Canadian Hazardous Products Regulations (HPR), because it falls outside of its jurisdiction.

14. Transport Information*

The content of this section is not enforced under the United States Regulations 29 CFR 1910.1200 – Hazard Communication Standard (HCS) and the Canadian Hazardous Products Regulations (HPR), because it falls outside of its jurisdiction.

15. Regulatory Information*

The content of this section is not enforced under the United States Regulations 29 CFR 1910.1200 – Hazard Communication Standard (HCS) and the Canadian Hazardous Products Regulations (HPR), because it falls outside of its jurisdiction.

16. Other Information

Date Prepared: 01/06/2015

Date Revised: 15/07/2015

Prepared by: Resolute Forest Products, Head office

Disclaimer:

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Label

BLEACHED KRAFT PULP**PRODUCT IDENTIFIER**

Bleached Kraft Pulp (Cellulose)

**MANUFACTURER**

Resolute FP US Inc.
PO Box 6
Calhoun, Tennessee
37309 USA

EMERGENCY CONTACT

CHEMTREC
Within USA and Canada: 1-800-424-9300 or 1-703-527-3887

HAZARD STATEMENT

Under the US 29 CFR 1910.1200, this product is not hazardous in the form in which it is shipped by Manufacturer but may become hazardous by downstream activities. If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air.

PRECAUTIONARY STATEMENTS

Caution should be taken in the processing, shipping, handling and use of this material, particularly if it is in a dry state and dust is produced.

Minimize dust generation and accumulation. Maintain good housekeeping to avoid accumulation of dried cellulose dust on exposed surfaces. Cellulose dust may pose a combustible dust hazard.

HAZARD PICTOGRAMS

None

SIGNAL WORD

Warning

Label Version: 2015